

WHAT IS CLAIMED IS:

- 1 1. A slip collar comprising:
2 (a) a tubular outer wall portion;
3 (b) a tubular inner wall portion;
4 (c) an intermediate portion disposed between the tubular outer wall
5 portion and the tubular inner wall portion;
6 (d) a slot region defined by the tubular outer wall portion and the tubular
7 inner wall portion,
8 wherein at least one of the tubular outer wall portion, the tubular wall inner
9 portion, and the intermediate portion comprises a fiber reinforced plastic material.
- 1 2. The slip collar of claim 1 wherein the tubular outer wall portion and
2 the tubular inner wall portion are each generally cylindrically shaped.
- 1 3. The slip collar of claim 1 wherein the tubular inner wall portion
2 comprises a chemically resistant material and the tubular outer wall portion comprises a
3 fire-resistant material.
- 1 4. The slip collar of claim 1 wherein the slip collar has only one slot
2 region.
- 1 5. The slip collar of claim 1 wherein the tubular inner wall portion is
2 shorter than the tubular outer wall portion.
- 1 6. The slip collar of claim 1 wherein the tubular inner wall portion
2 comprises a fluoropolymer material.
- 1 7. The slip collar of claim 1 wherein the inner wall portion comprises a
2 cured vinyl ester resin and the outer wall portion comprises a cured phenolic resin.
- 1 8. The slip collar of claim 1 further comprising an adhesive composition
2 in the slot region.
- 1 9. The slip collar of claim 8 wherein the adhesive composition comprises
2 a novalac or an epoxy resin.

1 10. A slip collar comprising:
2 (a) a tubular outer wall portion;
3 (b) a tubular inner wall portion;
4 (c) an intermediate portion disposed between the tubular outer wall
5 portion and the tubular inner wall portion,
6 (d) a first slot region defined by the tubular outer wall portion and the
7 tubular inner wall portion; and
8 (e) a second slot region defined by the tubular outer wall portion and the
9 tubular inner wall portion,
10 wherein at least one of the tubular outer wall portion, the tubular wall inner
11 portion, and the intermediate portion comprises a fiber reinforced plastic material, and
12 wherein the first and second slot regions face away from each other.

1 11. The slip collar of claim 10 wherein the tubular outer wall portion and
2 the tubular inner wall portion are each generally cylindrically shaped.

1 12. The slip collar of claim 10 wherein the tubular inner wall portion
2 comprises a chemically resistant material and the tubular outer wall portion comprises a
3 fire-resistant material.

1 13. The slip collar of claim 10 wherein the slip collar is adapted to join two
2 duct sections.

1 14. The slip collar of claim 10 wherein the tubular inner wall portion is
2 shorter than the tubular outer wall portion.

1 15. A duct assembly comprising:
2 (a) the slip collar of claim 10;
3 (b) a first duct including a first end inserted into the first slot region; and
4 (c) a second duct including a second end inserted into the second slot
5 region.

1 16. A method for joining ducts comprising:
2 (a) providing the slip collar of claim 10;
3 (b) depositing a first adhesive composition in the first slot region;
4 (c) depositing a second adhesive composition in the second slot region;
5 (d) inserting a first end of a first duct in the first slot region; and
6 (e) inserting a second end of a second duct in the second slot region.

1 17. A method for making a slip collar, the method comprising:
2 (a) forming a tubular inner wall portion;
3 (b) forming an intermediate portion;
4 (c) forming a tubular outer wall portion, and
5 (d) forming a slot region defined by the tubular outer wall portion and the
6 tubular inner wall portion,
7 wherein at least one of the tubular outer wall portion, the tubular inner wall
8 portion, and the intermediate portion comprises a fiber reinforced plastic material.

1 18. The method of claim 17 wherein the slot region is a first slot region
2 and wherein the method further comprises:
3 (e) forming a second slot region that is defined by the tubular outer wall
4 portion and the tubular inner wall portion, wherein the second slot region opposes the first
5 slot region.

1 19. The method of claim 18 further comprising, before (b):
2 placing a first spacer element on the formed tubular inner wall portion and
3 placing a second spacer element on the formed tubular inner wall portion, wherein the first
4 spacer element and the second spacer element are spaced from each other, and wherein in (b),
5 the intermediate portion is formed between the first spacer element and the second spacer
6 element.

1 20. The method of claim 19 wherein the inner wall portion is formed using
2 a vinyl ester resin and the outer wall portion is formed using a phenolic resin.

1 21. The method of claim 19 further comprising, before (b):
2 placing a first spacer element on the formed tubular inner wall portion and
3 placing a second spacer element on the formed tubular inner wall portion, wherein the first
4 spacer element and the second spacer element are spaced from each other, and wherein in (b),
5 the intermediate portion is formed between the first spacer element and the second spacer
6 element, and
7 wherein forming the tubular outer wall portion comprises depositing a fiber
8 reinforced resin composition on the first spacer element, the second spacer element, and the
9 intermediate portion.

1 22. The method of claim 19 wherein forming the tubular outer wall portion
2 further comprises using a filament winding process.

1 23. The method of claim 19 wherein forming the first slot region
2 comprises removing the first spacer element and forming the second slot region comprises
3 removing the second spacer element.

1 24. The method of claim 17 wherein the tubular inner wall portion, the
2 intermediate portion, and the tubular outer wall portion are formed on a mandrel.

1 25. The method of claim 17 further comprising placing a release film on a
2 mandrel prior to (a).

1 26. The method of claim 17 wherein the slip collar is for joining a pair of
2 air ducts together.